

(19)



Europäisches Patentamt

European Patent Office

Office européen des brevets



(11)

EP 0 228 458 B2

(12)

NEW EUROPEAN PATENT SPECIFICATION

(45) Date of publication and mention
of the opposition decision:

22.10.1997 Bulletin 1997/43

(45) Mention of the grant of the patent:

02.10.1991 Bulletin 1991/40

(21) Application number: 86904590.6

(22) Date of filing: 30.06.1986

(51) Int Cl.⁶: **C12N 15/00, C12N 5/00,
A61K 47/00, A61K 35/12,
A61K 38/08, A61K 38/43,
A61F 2/10**

(86) International application number:

PCT/US86/01378

(87) International publication number:

WO 87/00201 (15.01.1987 Gazette 1987/01)

(54) **EPITHELIAL CELLS EXPRESSING FOREIGN GENETIC MATERIAL**

EXPRESSION VON FREMDEM GENETISCHEM MATERIAL IN EPITHELZELLEN

CELLULES EPITHELIALES EXPRIMANT UN MATERIAU GENETIQUE ETRANGER

(84) Designated Contracting States:

AT BE CH DE FR GB IT LI LU NL SE

(30) Priority: 05.07.1985 US 752466

(43) Date of publication of application:

15.07.1987 Bulletin 1987/29

(73) Proprietor: WHITEHEAD INSTITUTE FOR

BIOMEDICAL RESEARCH

Cambridge, MA 02142 (US)

(72) Inventors:

- MORGAN, Jeffrey, R.
Brighton, MA 02135 (US)
- MULLIGAN, Richard, C.
Cambridge, MA 02138 (US)

(74) Representative: Schüssler, Andrea, Dr. et al

Kanzlei Huber & Schüssler

Truderinger Strasse 246

81825 München (DE)

(56) References cited:

WO-A- /05345

WO-A- 0/07136

US-A- 4 016 036

- Molecular and Cellular Biology, vol. 5, no. 1,
January 1985, American Society for
Microbiology (US) N.E. Hynes et al. "New
acceptor cell for transfected genomic DNA:
oncogene transfer into a mouse mammary
epithelial cell line", pages 268-272, see the
abstract
- Cell, vol. 33, no. 2, June 1983 M.G. Roth et al.:
"Influenza virus hemagglutinin expression is
polarized in cells infected with recombinant
SV40 viruses carrying cloned hemagglutinin
DNA", pages 435-443, see the abstract

- Proceedings of the National Academy of
Sciences USA, vol. 81, October 1984 R.D. Cone
et al.: "High-efficiency gene transfer into
mammalian cells: generation of helper-free
recombinant retrovirus with broad mammalian
host range", pages 6349-6353, see figure 2

EP 0 228 458 B2